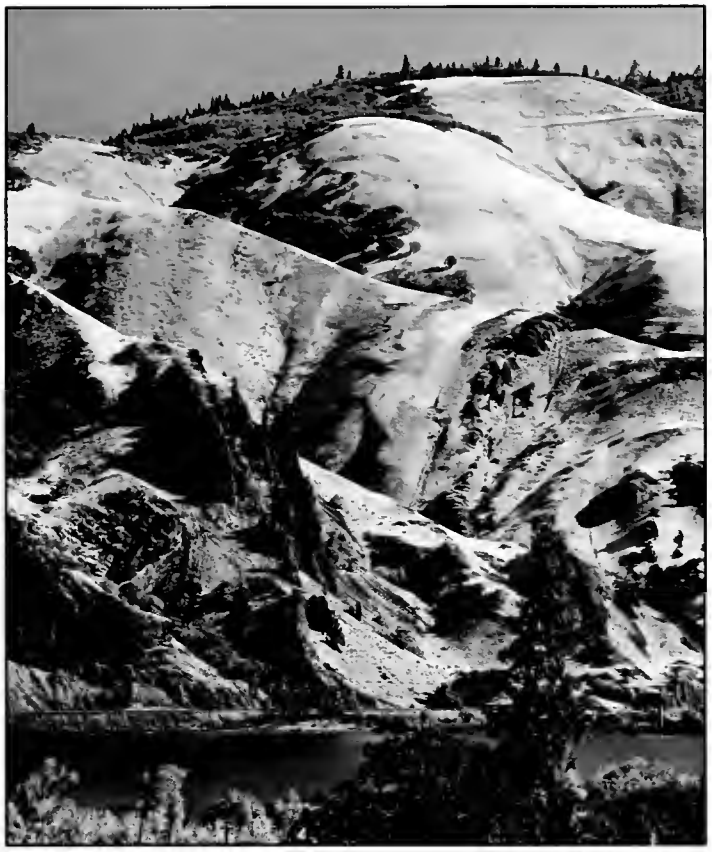
1992 ANNUAL REPORT

Northwest Power Planning Council



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1992 Twelfth Annual
Report of the
12/92 Pacific Northwest

12TH ANNUAL REPORT of the Pacific Northwest Electric Power and Conservation Planning Council

Submitted to the
Committee on Energy and Natural Resources
United States Senate
Committee on Energy and Commerce
United States House of Representatives
and the Committee on Interior and Insular Affairs
United States House of Representatives

OCTOBER 1, 1981, THROUGH SEPTEMBER 30, 1982

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The Northwest Power Planning Council was established by the Congress of the United States, and the legislatures and governors of Idaho, Montana, Oregon and Washington. These bodies charged the Council with convening a public forum through which the electricity needed by the Northwest could be secured economically, and the Columbia Basin's fish and wildlife could be protected.

Specifically, Congress, in the Northwest Power Act of 1980 (Public Law 96–501), called on the Council to:

- Develop a 20–year electrical power plan to guarantee adequate and reliable energy at the lowest cost to the Pacific Northwest.
- Produce a program to protect and rebuild fish and wildlife populations in the Columbia River Basin that have been affected by hydroelectric development.
- Conduct an extensive program to involve the public in the Council's deliberations over power planning, and fish and wildlife protection.

This annual report has been developed pursuant to Section 4(h)(12)(A) of the Northwest Power Act (Public Law 96–501).

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October 1, 1992

To the Citizens of the Pacific Northwest:

For an organization whose name appears to have little to do with fish or wildlife, the "Northwest Electric Power and Conservation Planning Council" has had time for little else in 1992. We are ordered by the Northwest Power Act to balance the needs of Columbia River Basin fish and wildlife with this region's need for a reliable electric power system. Our four state governors have reiterated this congressional charge, urging us to devise a program that can reverse a half–century of half measures and save from extinction a creature that holds high value for Northwesterners—our Columbia River salmon.

Our governors want a regional strategy to save the salmon, one born of the people, institutions, needs and concerns of this broad community.

Well, this is a remarkably complex biological, technological and sociological problem we have tackled. We have explored hundreds of actions that, taken together, could lead to recovery for our salmon runs. Over the past year and a half, we have discussed these with the broadest community we could assemble. Finally, we approved those measures we believe have the greatest likelihood of succeeding. These make up our "Strategy for Salmon," a set of amendments to our Columbia River Basin Fish and Wildlife Program.

There has been abundant and many–sided criticism of our decisions. No single entity is particularly pleased. I consider that one measure of our success. If you use the water or the electricity from the Columbia, if you benefit from flood control, if you consume the fruits of our irrigated valleys, you have played a role in the demise of the salmon. We invite you to participate in their recovery.

Our actions now will set an example for other regions facing similar choices. On the other hand, the consequences of our inaction will be grave, not only for salmon, but for this region's economy.

If this sounds familiar, you may recall a similar message in our 1991 Power Plan for the region. In that plan, we identified the need for urgent action to meet the growing energy needs of Northwest citizens and businesses. The region's utilities have moved quickly. They are beginning to capture conservation opportunities. They have set in motion plans to test renewable resources, such as wind and geothermal power. And they are working with industries to build power generators that use industrial waste heat.

All of these actions are critical, but much more is needed. We set a regional goal of saving at least 1,500 megawatts by the year 2000. We still have a long way to go in a short time.

This is not the time for anyone to withdraw from the planning table. The region has accomplished much, and we deeply appreciate everyone's participation in these often long and difficult debates. But the Northwest's critical course change is just beginning. The future of this region's economy and the well–being of its creatures depend on our continued cooperation.

Sincerely,

Ted Hallock, Chairman

Introduction

In Fiscal Year 1992, the Northwest Power Planning Council tackled some of the most challenging issues this region has ever faced. We completed amendments to the salmon–related sections of our Columbia River Basin Fish and Wildlife Program, and initiated implementation of our 1991 Northwest Conservation and Electric Power Plan.

Never before has the Council's charge to balance fish and power interests been more difficult, or more critical.

The Pacific Northwest is in the midst of one of the longest periods of drought in its history, at a time when it desperately needs all the water it can get.

This is a region that depends mightily on water resources—for two–thirds of its electricity, for its much–valued salmon and other wildlife, for irrigating its remarkably productive farms and carrying inland products to markets. Water shortages here translate into far more severe consequences than just dry lawns and unwashed cars.

A dry year for salmon

Low water levels are ominous for our already precarious wild salmon populations. While the drought did not cause the salmon's decline, the lack of water diminishes our ability to protect and rebuild salmon populations.

In the Snake River Basin, we are experiencing our sixth year of below average runoff, with this year's river running at less than half of average. On the Columbia River, too, water levels are about 40 percent below average this year. In fact, 1992 is shaping up as one of the driest years ever in the Northwest. While 1991 had reasonably good flows in the Columbia, the last very good water year in the Snake was in 1984.

As it happened, 1984 was the first year the region ran the "water budget," an attempt to improve the chances of survival for young salmon in the Columbia by releasing extra water through the dams in the spring and summer to flush the fish quickly out to sea. Ocean conditions for salmon were also excellent. That year was a hopeful one for the region's hydropower, and fish and wildlife communities.

It was a hope that grew in 1985, when the United States and Canada negotiated a treaty to limit ocean harvests of Columbia River salmon to help the runs recover.

Those hopes were realized in 1986, 1987 and 1988, when adults from the 1984 brood returned to the Columbia in greater numbers than had been seen in decades. But most salmon runs have been declining since then, particularly those in the Snake River.

In the spring and early summer of 1990, petitions were filed with the National Marine Fisheries Service to list a total of five stocks of Snake and Columbia River salmon as endangered species under the federal Endangered Species Act. In 1991, four of these, the Snake River runs of sockeye, spring and summer chinook (considered one species by the Fisheries Service), and fall chinook were proposed for listing. The Fisheries Service made the listings final in 1992.

In May 1991, with support and encouragement from the Northwest's governors and congressional delegation, the Council began amending the Columbia River Basin Fish and Wildlife Program to incorporate more

Arid landscape in south central Washington.

comprehensive protections for salmon and steelhead. In the first phase of that process, completed in August 1991, we amended into the fish and wildlife program actions to quickly improve important habitat, to screen salmon out of diversion canals and to increase the production of salmon in the basin. Regional fish and wildlife agencies, Indian tribes, the Bonneville Power Administration, dam operators and others immediately began to implement these measures.

After approving the first set of amendments, we took on the tougher and more controversial issues. Working with as many people as we could bring to the table, we adopted a second set of amendments in December 1991.

At that stage, we called for increased flows for fish in both the Columbia and the Snake to speed salmon migration to the sea and improve their survival. But low water levels confounded our best intentions. Because of the drought, flows in the Snake River were still very low this year, even though, at the Council's request, more water was stored for fish flows. Without the stored water, it would have been much worse.

We then turned to the U.S. Army Corps of Engineers, which has been collecting and barging young salmon around the dams for release below Bonneville Dam. We asked the Corps to collect and transport by barge as many fish as possible this year. Over the longer term, we called on the Corps to improve conditions for salmon in the barges.

In addition, we called on state and federal fishery harvest managers, urging them to reduce salmon harvests, particularly for Snake River fall chinook. We were pleased that they were cooperative, setting tighter restrictions on catches than in past years.

In our final amendments, which included a review of previous decisions, we refined and strengthened our goals for the salmon rebuilding effort. These last changes included the concept of looking at and working on watersheds (the reach of individual streams) in

comprehensive and cooperative ways to improve their ability to nurture and sustain salmon.

Early in 1992, the National Marine Fisheries Service acknowledged that the measures the Council amended into the program to protect salmon will give the region a head start on salmon recovery for the threatened and endangered species. The Service also ruled that 1992 river operations, based on the Council's program amendments with a few modifications, would not jeopardize salmon this year. The Service did note that additional actions would be needed in the future.

In 1992, the Northwest Power Planning Council tackled some of the most challenging issues this region has ever faced.

As we worked on our salmon and steelhead amendments, we also took action on measures to protect and enhance resident fish—those that do not swim to the ocean—and wildlife. We approved two new wildlife reserves in Oregon, set aside old-growth forest for wildlife in Idaho and supported efforts by the Confederated Salish and Kootenai Tribes and the state of Montana to improve the fishery in northwestern Montana.

A parched hydropower system

Through the last years of the 1980s, electric power use in the region grew quickly, consuming the 2,500-megawatt energy surplus identified earlier in the decade. The growth in energy use, coupled with the shutdown of one nuclear power plant at Hanford, Washington, in 1987, and the provision of water for salmon flows, have left the Bonneville Power Administration about 400 megawatts short of being able to produce the energy needed by its customers.

While power use is still increasing in the Northwest, the rate of increase has slowed to within the medium ranges in the Council's power plan forecast. Still, Seattle and Portland have been listed as the third and fourth fastest growing metropolitan areas in the United States. Boise and Portland were described as two of the 10 best cities in the United States by one popular national magazine. And the entire region continues to get national attention for its "livability."

Low water levels in the Columbia's system of hydroelectric dams exacerbate the situation, at least in the short term. With low flows, the supply of hydropower is reduced, and reservoirs do not refill for power generation later in the year. The Northwest states and utilities have prepared a coordinated strategy for curtailing power use if low water or some other event cuts short-term (of several months' duration) power supplies.

Night scene in Portland, Oregon.

Over the longer term, the Northwest's expanding economy and population increases will challenge the region to seek new sources of electricity. To guide that search, the Council adopted its 20–year Northwest Conservation and Electric Power Plan for the region in the spring of 1991. The plan detailed our strategy for acquiring the least expensive and most environmentally responsible resources the region can turn to. The first of these is energy efficiency—making the best possible use of existing supplies before paying large sums to purchase new ones.

We reviewed existing and anticipated energy use in the Northwest and determined that the region could cost–effectively save at least 1,500 megawatts by the year 2000, if local, state and federal governments, utilities, other commercial enterprises and individuals all worked together. This is in addition to the energy savings the region is already capturing through our tighter building codes.

To break ground for this cooperative endeavor, and gauge the level of commitment of Northwest utilities, we sponsored a region-wide utility conference in November. Executives from the Northwest's biggest utilities presented their conservation plans at this gathering. Every Northwest public utility regulator attended, taking advantage of the opportunity to publicly review and challenge the utility plans. The regulators also agreed in subsequent meetings to work more closely with us on power plan implementation, particularly on eliminating barriers that block the region's ability to save electricity.

More than a dozen such barriers were identified in the first meetings of the Conservation Acquisition Task Force, which we formed to help coordinate progress on the conservation goal. The task force is taking on at least one major barrier at each of its meetings.

Reports on the region's progress in capturing conservation have been generally heartening. Conservation activity at both public and private utilities in 1992 significantly surpassed that of the prior year. Bonneville and utility plans show additional increases over the next few years. At least one utility, Puget Sound Power & Light, exceeded its conservation goals in 1991, achieving 17.5 megawatts of energy savings.

Glacier National Park in Montana.

The Northwest also can take credit in 1992 for creating a program to make electrically heated manufactured housing in this region more efficient than anywhere else in the United States. The region could save between 7 and 9 megawatts every year from this single program. This is enough power for about 5,000 average Northwest homes.

In addition to conservation, our power plan outlined activities that could help the Northwest incorporate cost–effective generating resources into the Northwest's power picture. Because of current low natural gas prices, gas–fired cogeneration and combustion turbine power plants are an important option. The power plan calls for cogeneration that is matched with industrial processes, and for combustion turbines that can be used to back up the hydropower system when necessary.

The Bonneville Power Administration and several Northwest utilities are actively pursuing these gas–fired resources.

At the same time, the plan calls for efforts to confirm the potential of renewable resources, such as wind, solar and geothermal power projects, for meeting our power needs. The Council, Bonneville, the region's utilities, resource developers, environmentalists and others have been working together to advance this pursuit.

Bringing more people to the table

Last year, as in past years, we set for ourselves a goal of making certain that everyone who has a stake in the Columbia River—whether it is for power, fish, farming, navigation, recreation or water itself—has an opportunity to participate in the decisions we make. Our decisions affect local economies and jobs.

We have always worked closely with regional utilities, fish and wildlife agencies, Indian tribes, and consumer and environmental groups.

This year, we made a special effort to meet with commercial and sports fishers, port authorities in river communities, shipping and navigation interests, leaders in the natural gas industry, members of the agricultural community and river protection advocates.

Their participation helped us make better decisions and, perhaps more importantly, their participation helped us see those decisions carried out. In very real ways, this region is taking the actions it must to ensure balanced resource use, a healthy environment and a sustainable Northwest economy into the next century.

This region is taking the actions it must to ensure balanced resource use, a healthy environment and a sustainable Northwest economy.

Each month, the Council reports on the region's progress in implementing both the Columbia River Basin Fish and Wildlife Program and the Northwest Conservation and Electric Power Plan. These implementation status reports are available from the Council's central office. Reports from September 1992, which cover actions taken this year, are included in the appendices to this annual report.

The following sections address in more detail actions the Council and the Northwest have taken in the past year.

Fish and Wildlife

1992, like 1991, was a year for salmon, the year the four Northwest states accelerated a regional program to help depleted salmon runs.

That program is being carried out—even as it continues to evolve.

In September, we incorporated our strategy for salmon into the Columbia River Basin Fish and Wildlife Program. We have designed an overall framework so that individual actions taking place throughout the Columbia Basin will be integrated into a comprehensive, systemwide plan. With regional cooperation, our salmon strategy will lead to a steady rebuilding of the runs.

We also have been carefully monitoring the progress of state and federal agencies and Indian tribes implementing the program. Much has been accomplished, and much remains to be done.

This fall we will take up issues related to the impact of hydroelectric dams on resident fish—those that do not swim to the ocean—and on wildlife. These also will take the form of amendments to the Columbia River Basin Fish and Wildlife Program.

Salmon protection in the rivers

The Columbia River Basin's hydroelectric dams impede young salmon attempting to migrate to the ocean and slow their travel time, increasing the likelihood that they will be intercepted by predators. Our approach to this critical problem has both near-term and longer term actions to benefit the salmon.

For the near term, we've concluded that storing more water in upriver dams so it can be released when young fish are attempting to migrate out to sea may cut salmon deaths by speeding the migration. This is particularly important on the Snake River, where there have been inadequate water flows for some years, and salmon runs have been greatly reduced.

We asked dam operators to triple water storage in Snake River reservoirs that are above Lower Granite Dam and double storage at Columbia River reservoirs to have water available to help the young salmon.

We hope to achieve a Snake River flow equivalent to at least 85,000 cubic feet per second during the migration period. To reach this speed, reservoirs would be drafted behind the four dams on the lower Snake River to just above minimum operating level for the navigation locks. The U.S. Army Corps of Engineers would provide additional water to the Snake from Dworshak Dam, which is located upstream on the North Fork Clearwater River, and from the upper Snake River.

For the past decade, the Corps of Engineers has been aiding the spring salmon migration by collecting young salmon and steelhead at upriver dams and transporting them in barges to below Bonneville Dam, the lowest dam on the Columbia. Because water levels in the river system were so low this year, the Corps of Engineers was asked to collect and barge around the dams as many young salmon as possible. In addition, we called on the Corps to seek out ways to reduce the stress to salmon being transported in barges around the dams.

In the near term, especially with low–water conditions, barging the fish downstream is one of the few tools the region has to improve salmon survival. Depending on results of continuing evaluation, barging may be useful over time as part of the mix of techniques the region will employ to increase the survival of young fish on their journey to the ocean.

To coordinate ongoing river flow and other mainstem river operations for fish and to help resolve disputes, we created the Fish Operations Executive Committee, which includes policy–level representatives of affected state and federal agencies, dam operators and Indian tribes.

With regional cooperation, our salmon strategy will lead to a steady rebuilding of the runs.

In the longer–term, another means of increasing river velocity in the Snake is to draw down the reservoirs at the lower Snake River dams even farther. We consider these deeper drawdowns to be a promising concept when combined with other mainstem passage measures, but we seek more information on their possible economic and physical consequences (erosion, impacts on navigation and irrigation) and of the biological value of this action. To provide this information, we have called on Bonneville, the U.S. Army Corps of Engineers, the Bureau of Reclamation, state fishery agencies and the region's Indian tribes to produce an operations plan, a design plan, a mitigation plan and a biological plan for implementing a drawdown strategy. Drafts of these plans are due in November 1992, with final reports in November 1993.

We asked the Corps of Engineers to carry out a test drawdown this spring and to study and report on the implications of the test. In March, the Corps dropped water levels in the reservoirs behind Lower Granite and Little Goose dams, two of the four Lower Snake River dams that would be involved in future drawdowns. The Corps is currently evaluating the data generated by this test.

In our earliest fish and wildlife program, we called for the construction of bypass channels and screens to protect young salmon from turbines at all Columbia and Snake River dams except those that have no salmon runs above them. Progress was slow at some dams because of opposition from the federal Office of Management and Budget. But Congress supported bypass improvements, and we now expect this screening to be completed by March 1998. One of the previously unscreened projects, Lower Monumental Dam, had screens and a bypass system installed in 1992.

In the Salmon River Basin near Stanley, Idaho.

We also called for the screening of water diversions to prevent salmon from being drawn into farm fields and other areas where water is diverted. At our request, the region's fish and wildlife agencies and Indian tribes have prioritized improvements to fish passage facilities and irrigation diversion screens in areas that support depleted salmon runs. About three dozen of the most important diversions are expected to be screened this year. These screening projects will be financed in part through the federal Mitchell Act program, using additional money appropriated by Congress last year. Bonneville is funding the construction of shops where the screens can be designed and manufactured.

We have also asked state water resource managers to explore water conservation opportunities to help keep more water in streams for fish. And we have asked the states to ensure that new water appropriations from the Columbia and Snake rivers do not put the salmon at further risk. All four states met this challenge with at least temporary new water appropriation cutoffs.

While much of the region's attention was focused on achieving adequate *quantities* of water to meet fishery, power and other needs, the federal Environmental Protection Agency was complying with another Council request—to review and report on water *quality* in the Columbia River Basin. The Agency led a joint effort by regional water quality agencies to report on current pollution and water temperature concerns in the Columbia Basin. Draft recommendations from this process were reported to the Council in June. These recommendations include the suggestion that water–quality–related activities be coordinated in the Columbia Basin, that there be additional study where information is lacking, and that there be a demonstration project to solve water temperature problems in the Grande Ronde River Basin in Oregon.

Salmon habitat improvements

Development in the Northwest, which transformed an enormous natural watershed into urban and rural communities, had severe ramifications for salmon habitat. About a third of the existing salmon streams were blocked by dams that lack any adult or juvenile salmon passage facilities. While areas of productive habitat still exist in the region, much of the habitat has been degraded. If habitat can be improved, and access to it cleared, there will be more areas for salmon to spawn and rear. Furthermore, more salmon offspring will be able to survive their first months in better quality habitat.

Because there were many sources of habitat damage, we maintain that there should be many sources for funding the restoration.

Our first goal in this regard is to maintain existing salmon habitat and improve it where necessary. We have proposed that the way to do this is to take a total watershed approach—starting in the upper reaches of a given stream and working to restore the entire drainage as much as possible to a salmon–supporting state. This means developing better management practices in livestock grazing, logging and road construction, as well as controlling erosion along stream reaches, planting cover along streams to shade and cool the water, leaving or installing large boulders or fallen logs in streams to create resting pools for both young and old salmon, and numerous other measures.

We are selecting several tributaries that we believe could become "model watersheds," where land and water uses can be coordinated, and a detailed set of actions can be undertaken cooperatively by private landowners and government to address the most important factors limiting salmon production.

Because there were many sources of habitat damage, we maintain that there should be many sources funding the restoration, not just electricity ratepayers. It is especially important that federal land management agencies cooperate in this process because about half of the remaining salmon habitat in the Columbia River Basin and 70 percent in the Snake is in federal ownership.

We have asked federal land management agencies for information on water diversions needing screens and for a list of streamside properties that could be purchased or cooperatively managed as salmon habitat. The U.S. Forest Service has provided a brief status report, but managers of individual forests have not responded.

We also requested a summary of how the Forest Service is spending the additional money it received for habitat improvements from the 1992 Interior and Related Agencies Appropriations Act. The regional forester for Oregon and Washington said managers of individual forests would provide quarterly reports on the measures.

The Bureau of Land Management reported that habitat improvements it had planned for 1992 were scaled down because of budget constraints. The Bureau's Idaho office, for example, only received $293,000 of the $850,000 it requested. Fishery and water authorities in all four states also reported that state budget constraints would limit their abilities to respond to measures called for by the Council.

We would like to see as many salmon returning to the natural environment as the habitat can support.

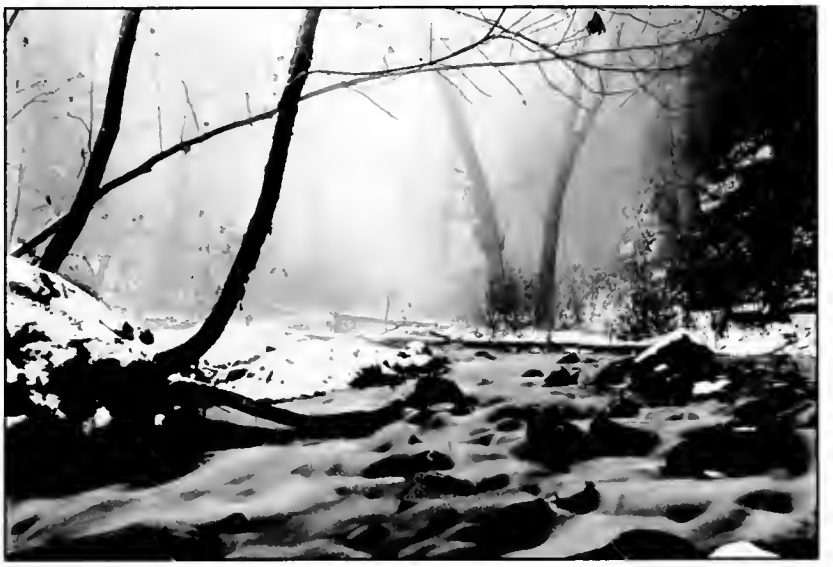
Salmon production

We would like to see as many salmon returning to the natural environment as the habitat can support. But we also recognize that conditions in the region's waterways are far from optimum for salmon. As noted earlier, restoring habitat to increase its ability to serve as home for salmon populations is a priority, but we've concluded that artificial production of these fish also will be part of the rebuilding effort.

About a third of our original wild salmon stocks are believed to be extinct. Out of concern that the genetic diversity provided by our remaining wild salmon stocks be preserved, we consulted salmon geneticists to help guide our production efforts. These geneticists met in three workshops under our auspices and have prepared genetic policy recommendations that include guidance for existing and future hatcheries.

One particular question we are exploring is how hatchery fish, even those from the most technologically advanced facilities, interact with wild stocks when they are released to streams (a practice called "supplementation"). Genetics experts are working with the agency and tribal Integrated Hatchery Operations Team to develop regional guidelines for future hatchery production.

Salmon harvest



Creek in the Willamette Basin, Oregon.

For many years, this region's harvest managers have tried to balance declining numbers of salmon against the need to protect the fishing industries in this region and beyond. While we applaud these past efforts, they have not gone far enough to provide the protection needed for this basin's most vulnerable fish.

One of the most significant problems is the intermingling of wild salmon with hatchery–bred stocks in the ocean. When harvesters haul in their catches, wild and hatchery fish are both caught. Furthermore, the 1985 U.S. and Canada Pacific Salmon Interception Treaty may need to be renegotiated to provide for more conservation of Columbia Basin stocks.

To begin to resolve these concerns, we have called for tighter constraints on certain salmon harvests, particularly on Snake River fall chinook; exploration of fishing license lease–back programs to reduce the number of Snake River fall chinook that are commercially harvested; and efforts to determine better ways to distinguish wild stocks from hatchery ones so hatchery stocks can be targeted in specific fisheries.

This spring, both state and regional harvest managers responded. Gillnet fishing in the lower Columbia River was severely restricted and even sport–fishing seasons were cut off early to protect returning adult salmon. Ocean harvests also were given the toughest quotas ever on some stocks.

In addition, we met with commercial fishers, fish processors, utility representatives and others to negotiate license lease–back programs. Those negotiations did not result in an agreement for this season's harvest, but they are being continued for next year.

Research into mechanisms for selectively harvesting hatchery fish are beginning. And we are monitoring early discussions regarding the U.S. and Canada Pacific Salmon Treaty renegotiations.

Resident fish and wildlife

As we worked on our salmon and steelhead recovery program, we also approved measures to protect and enhance resident fish—those that do not swim to the ocean—and wildlife.

We approved estimates of the number of resident fish lost due to the operation of Montana's Hungry Horse Dam on the South Fork Flathead River. At the same time, we authorized the Montana Department of Fish, Wildlife and Parks, and the Confederated Salish and Kootenai Tribes to go ahead with a plan they developed to protect resident fish in the reservoir and the river.

We have called for tighter constraints on Snake River fall chinook harvests.

We authorized the purchase of 830 acres of old–growth forest in Idaho. The forest is located along Buck Creek, a tributary of the North Fork Clearwater River. The purchase partially compensates for wildlife habitat losses due to the construction and operation of Dworshak Dam. Later, we authorized the state of Idaho, the Nez Perce Tribe and the Bonneville Power Administration to proceed with an agreement that sets aside some 60,000 acres near Dworshak Dam as additional wildlife habitat. The land is in the Craig Mountains, Buck Creek drainage and along the lower Clearwater River.

In addition, the Sherman Creek Kokanee Hatchery near Kettle Falls, Washington, was completed and dedicated in June 1992. Kokanee salmon will be raised at Sherman Creek and released into Lake Roosevelt, the reservoir behind Grand Coulee Dam. The Sherman Creek Hatchery will operate in conjunction with the nearby Spokane Tribal Hatchery. Eggs will be taken from spawning kokanee at the Sherman Creek Hatchery and incubated at the tribal hatchery. As juveniles, kokanee will be transferred back to Sherman Creek to be raised to adult stages and then released into the reservoir.

Salmon Counts at Bonneville Dam

Fish Species	1992 (through 9–17–92)	10–Year Average (through 9–17–92)
Spring Chinook	90,582	83,948
Summer Chinook	19,245	29,617
Fall Chinook	110,637	224,417
Coho*	5,960	31,629
Sockeye	84,998	89,193
Steelhead	288,465	249,793

* This is a late run. Numbers will increase by year's end.
Source: Fish Passage Center and the U.S. Army Corps of Engineers

Power Planning

In April 1991, when we adopted our Northwest Conservation and Electric Power Plan, we set a challenging agenda for the Council, as well as for the rest of the region. If the Northwest is going to meet its growing electric needs at the lowest possible cost in both dollars and in environmental impacts, it will require the concerted efforts of the Council, the Bonneville Power Administration, utilities, local and state governments, and individuals.

While it would be naive to say that everything we called for in the plan is under way, we are pleased to report that this has been a year of tremendous progress.

Conservation

We set a goal in the power plan of achieving 1,500 megawatts of energy savings in the Northwest by the year 2000. We compared the 1,500–megawatt conservation goal to building a "conservation power plant," and held a ground–breaking conference in November. We invited executives from every major Northwest utility and public utility regulators from every Northwest state.

At the conference, the representatives from investor–owned utilities, the region's largest public utilities and Bonneville presented their conservation and other resource targets. The commitments announced at the conference and reports on achievements over the past year by Bonneville and the utilities suggest that the region is seriously tackling its conservation goals. If utilities meet their targets, the region will have secured the 1,500 megawatts in savings on schedule. (See box.)

We are especially proud of one major program initiated this year. We have worked with Bonneville, the region's public and investor–owned utilities, the manufactured housing industry and state energy agencies for more than a year to find a cost–effective way to make electrically heated manufactured housing in the region more energy efficient.

Approximately 10,000 new electrically heated manufactured homes are built and sited in the Northwest every year. Because construction standards for these homes are developed by the federal Department of Housing and Urban Development, rather than locally, most new manufactured homes are far less efficient than site–built homes. At least they were until April 1992.

Now, in the first program of its kind in the United States, all 18 housing manufacturers in the region, every Northwest utility and all four state energy agencies are working together to make electrically heated manufactured homes destined for sites in the four Northwest states more efficient than any comparable housing in America. This voluntary program will save the region between 7 and 9 megawatts each year.

In our power plan, we agreed to help coordinate the region's effort to acquire the conservation we called for. To assist us, we have formed a Conservation Acquisition Task Force, which includes two dozen representatives from utilities, local governments, state energy agencies and conservation advocacy groups.

In the group's first meetings, members listed what they believed were the major barriers inhibiting successful conservation

progress in the region. At each subsequent meeting, they attack these barriers.

For example, one particular concern the group identified was the lack of educational opportunities to provide more qualified personnel for conservation programs. Without adequate numbers of trained staff, conservation programs will be slower to get off the ground. To break down that barrier, the group suggested that an existing Bonneville task force studying the lack of training programs for commercial conservation should broaden its efforts to explore ways to meet all the education and training needs of the Northwest's energy–efficiency effort. The Bonneville group agreed to the proposal and is expecting to deliver its education plan this October (1992).

Another important task is tracking the progress of the region's utilities in acquiring conservation. Conservation tracking is important to: 1) the individual utility as it manages its conservation programs; 2) the regulatory commission, which is called upon to allow utility recovery of conservation expenses and a utility return on conservation investments; and 3) the Council, as we monitor regional progress in implementing the plan. Working closely with Bonneville, the region's public and private utilities, and the region's utility regulatory commissions, we are setting up a uniform system to track utility conservation results.

Regional Conservation Targets

Utility	1992 (MWa)	1993 (MWa)	2000 (MWa)	New Resources (%)
Bonneville Power Administration	28.0	56.0	586	44
Idaho Power Company	1.7	3.4	63	46
Montana Power Company	6.0	14.0	87	33
Pacific Power and Light	10.7	14.3	195	13
Portland General Electric	7.5	14.0	194	30
Puget Sound Power & Light	24.0	24.0	220	14
Washington Water Power	1.0	1.0	11	10
Totals	78.9	126.7	1,356	
1991 Power Plan Targets	23.0	127.0	1,516	

New resources

In our plan, we urged Bonneville and the utilities to find ways to shorten the time needed to take a power plant from idea to reality, so new plants would be ready to generate electricity when the region needs the power. We called this process "optioning," which means that decisions to construct new resources are broken into two steps. Time–consuming but relatively inexpensive siting, design and licensing procedures are undertaken, but the project is held until it is clear that the power is needed. Once that need is certain, a decision to build the plant can be made. This two–step process reduces the short–term cost and long–term risk of constructing new power plants.

We met with utility regulators and state facility siting agencies to begin moving this process along. Both Oregon and Montana are considering ways to facilitate optioning. Bonneville is in the process of optioning approximately 800 megawatts of energy supplies. In its bidding process for these resources, the agency drew proposals for 7,850 megawatts of resources. Bonneville has selected 25 semifinalists with about 2,000 megawatts to offer.

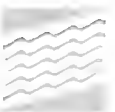
If utilities meet their targets, the region will have secured the 1,500 megawatts in savings on schedule.

At the same time, several Northwest utilities have announced their need for new resources and are also seeking these through competitive bidding by developers. Bonneville, Puget Sound Power & Light, Pacific Power and Light Company, Washington Water Power and the Montana Power Company are among the first to make at least preliminary choices, each of them selecting both conservation and generating resources. Puget Power has 70 megawatts in service from its first round of bidding and 281 megawatts under construction. These resources, and many of the resources under consideration by other utilities, are gas–fired cogeneration facilities.

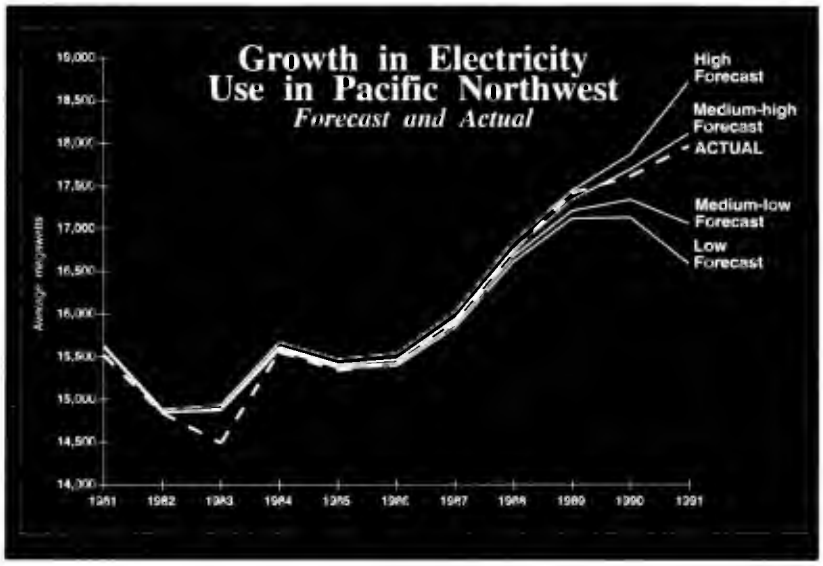
The Council is closely monitoring these processes and resource choices to encourage their consistency with the regional power plan. We also have met with representatives of the natural gas and pipeline industries to improve our understanding of future natural gas prices and availability.

The Northwest Power Act includes provisions for Council review of Bonneville Power Administration plans to acquire major new resources. These provisions, contained in Section 6(c) of the Act, direct Bonneville to conduct a public review before it acquires or underwrites utility acquisition of resources of more than 50 megawatts. The Act also gives the Council authority to follow Bonneville's review with one of its own. The purpose of these reviews is to ensure that the new resources are consistent with our power plan. If the resources are not consistent with the power plan, Bonneville must turn to Congress for authorization to proceed.

In 1986, Bonneville and the Council drafted a process for conducting these reviews. At the time, the region had surplus power and there were few plans to acquire major new resources. This year, because the region requires and is developing new power supplies, we updated our policy to ensure that Bonneville and the Council can work effectively and efficiently together on these resource reviews, and to give project developers a clearer sense of what criteria new resources will be expected to meet.



Renewable resources



The 1991 Power Plan included a strategy for bringing more renewable resources, such as wind, solar and geothermal power, into both a competitive price range and practical application in the Northwest.

We asked Bonneville to develop three geothermal test facilities in promising areas of the region. The agency selected Newberry Volcano, in the Deschutes National Forest near Bend, Oregon; Glass Mountain, in the Modoc National Forest 25 miles south of the California/Oregon border; and a site at Vale, Oregon, near the Idaho border. Bonneville is now negotiating with potential project developers and partner utilities. In the case of the Newberry proposal, the developer and the Eugene (Oregon) Water and Electric Board are working with the community in the vicinity of the proposed project to resolve siting concerns.

We also called on Bonneville and the utilities to explore the potential of wind resources in the region. Wind, as we noted in the plan, could supply up to 4,500 megawatts in the Northwest. Important technological progress has brought the cost of wind power within range of other resources. In its competitive resource bidding, Puget Sound Power & Light selected a wind farm proposal for Rattlesnake Mountain in southeastern Washington. Portland's PacifiCorp and Portland General Electric, plus the Idaho Power Company, have all agreed to buy wind power generated at the site. Negotiations are under way.

In addition, a coalition (Bonneville's Resource Supply Expansion Program) has been formed among state and federal energy agencies, utilities, wind resource developers, environmentalists and others to encourage development of wind and other renewable resource technologies in the region. Among other things, the group plans to install up to 50 megawatts of commercial–scale wind farms to demonstrate wind technologies under climate conditions in the Northwest. Group members are also developing a set of siting guidelines for wind power, which communities can adopt or adapt to address local siting concerns. An advanced wind turbine test site is also being planned.

Regulatory changes

It is clear to us that few of the changes we envision for this region will come to fruition without regulatory support at the state and, in some cases, local levels. For example, unless utilities can recover certain research and development costs through retail power rates, they will be reluctant to take the risks required to advance technologies. This is also true for regulatory approaches that help utilities profit from saving electricity rather than just from selling it.

Important technological progress has brought the cost of wind power within range of other resources.

Puget Sound Power & Light and the Washington Utilities & Transportation Commission designed an innovative regulatory treatment for conservation efforts. Oregon's Public Utility Commission is also considering new approaches for that state's utilities.

The Council is working closely with the state public utility commissions to develop policy changes of this sort. In February, the Council met with commission members to discuss the kinds of changes necessary and ways to help the states further those changes. Commissioners asked the Council to develop a mechanism for tracking energy savings regionwide. They also agreed to work with the Council to develop a consistent approach to incorporating the environmental effects of resource development in projected resource costs. We expect to meet more frequently with the state regulators in the future.

Power planning

While a primary focus of ours has been implementing the power plan, we are also committed to maintaining and enhancing our planning capabilities. In this regard, we have incorporated a new computer model that will improve our ability to gauge residential energy demands in future planning endeavors. A similar upgrade of our modeling capabilities is being undertaken for estimating commercial energy demands.

In addition, we have modified our computerized planning models to track environmental impacts associated with alternative resource strategies, and to be more able to clearly evaluate the effects of the hydropower system on salmon. We have also taken steps with Bonneville to improve our understanding of future natural gas availability and prices. This will provide better guidance as the gas and electricity markets become more integrated in the future.

Council Meetings

Date	Purpose and Location
October 8–10, 1991*	Council Meeting Richland, Washington (2)
October 23–24*	Working Session Portland, Oregon (2)
November 12–14	Council Meeting Helena, Montana
November 25–27	Working Session Portland, Oregon
December 10–12*	Council Meeting Portland, Oregon (1)
January 8–9, 1992*	Council Meeting and Working Session Boise, Idaho (1)
January 22–23*	Working Session Portland, Oregon (1)
February 11–12*	Council Meeting and Working Session Seattle, Washington (1) (2)
February 12–13*	Council Member Retreat Seattle, Washington (3)
March 11–12	Council Meeting and Working Session Bozeman, Montana
April 7–9	Council Meeting Warm Springs, Oregon
April 21*	Council Member Retreat Portland, Oregon (3)
April 22–23	Working Session Portland, Oregon
May 12–13*	Council Meeting Wenatchee, Washington (1) (2)
May 27–28	Working Session Portland, Oregon
June 10–11*	Council Meeting Post Falls, Idaho (1) (2)
July 8–9	Council Meeting Kalispell, Montana
August 12–13*	Council Meeting Astoria, Oregon (1) (4)
August 25–27	Council Meeting and Working Session Portland, Oregon
September 9–10*	Council Meeting and Working Session Boise, Idaho (2) (4)

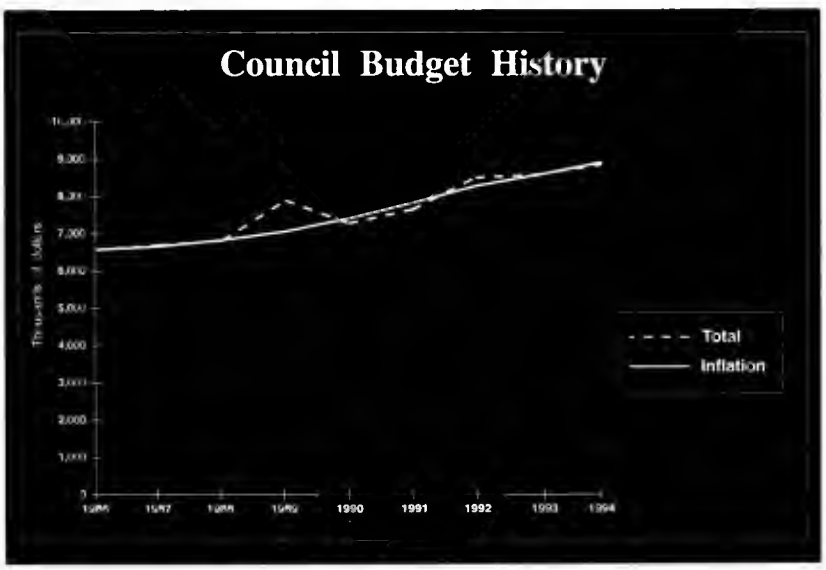
* Portions of these meetings were closed under the following exemptions to the open meetings provisions of the Council's bylaws. (1) internal personnel; (2) civil litigation; (3) retreat to consider Council organization, structure and/or procedure; (4) premature disclosure.

Budget Summaries

The Council is funded out of electricity revenues collected by the Bonneville Power Administration, a federal agency that markets power produced in the Pacific Northwest.

For the last eight years, the Council's budget has only grown at or just under the rate of inflation. The 1992 budget totaled $8,484,000. To help minimize impacts on Northwest electrical rates, the Council substantially underspent its 1992 budget by reducing both staffing and contracting expenditures. The proposed Fiscal Year 1993 revised budget total is $8,651,000. The draft budget for Fiscal Year 1994 totals $8,962,000.

Most of these increases are due to annual projected inflation. Beyond inflation, the proposed budgets specifically reflect emphasis in the Council's public affairs, fish and wildlife, and power planning divisions to accommodate implementation of the power plan, resolution of critical salmon questions and intensification of public information and involvement activities.



Rulemakings

Between October 1, 1991 and September 30, 1992, the Council entered rulemaking to amend either its power plan or its fish and wildlife program to address the following issues:

Phase two rulemaking

In October 1991, the Council entered the second phase of amending its Columbia River Basin Fish and Wildlife Program. Phase two addressed issues of mainstem survival, harvest and some production and habitat measures. Rulemaking concluded in December 1991.

Protected areas designation

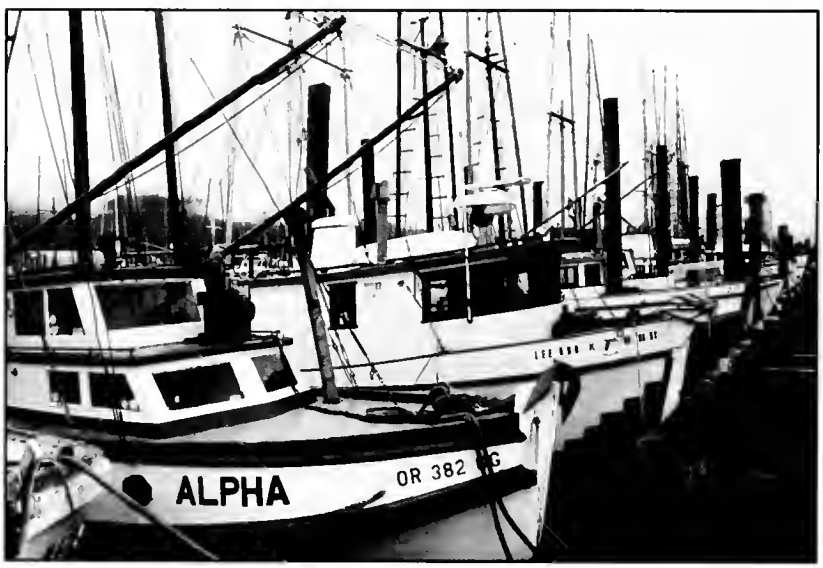
In March 1992, the Council entered rulemaking to amend the protected areas designation portion of the Columbia River Basin Fish and Wildlife Program. Rulemaking concluded in June 1992.

Phase three rulemaking

In June 1992, the Council entered the third phase of amending its Columbia River Basin Fish and Wildlife Program. Phase three addressed issues of fish habitat and production. Rulemaking concluded in September 1992.

Phase four rulemaking (tentative)

The Council is tentatively scheduled to enter the fourth phase of amending its Columbia River Basin Fish and Wildlife Program this fall. Phase four will deal with wildlife and resident fish.



Ocean fishing vessels docked in Newport, Oregon.

R. Ted Bottiger (Washington, appointed 1987)
Bottiger was the majority leader in the Washington State Senate from 1983 to 1987 and the minority leader from 1981 to 1982. Prior to that, he was the chairman of the Senate's energy and utilities committee. He served in the legislature from 1965 until his appointment to the Council in 1987. Bottiger is of counsel in the Tacoma firm of Counsell, Murphy and Bottiger.

John Brenden (Montana, appointed 1989)
Brenden was the co–chairman of Stan Stephens' successful campaign for governor in 1988. He also chaired Governor Stephens' transition team after the election. Brenden was the Montana Republican Party chairman from 1983 through 1987 and served as the finance chairman for Congressman Ron Marlenee's campaign in 1976. Brenden and his wife operate a wheat ranch in Scobey, Montana, and have real estate interests in the Flathead Valley. They own a home at Ashley Lake, west of Kalispell.

Angus Duncan (Oregon, appointed 1990)
Duncan was corporate development director of District Utility Services Company, a PacifiCorp subsidiary that provides utility and energy management services to university and business campuses and urban centers. Prior to joining PacifiCorp, he held executive positions in two companies involved with wind energy. Duncan was director of energy policy for the U.S. Department of Transportation from 1979 to 1981. He was administrative assistant for policy to Mayor Neil Goldschmidt of Portland, Oregon, from 1975 to 1979. He represented the city in the drafting of the Northwest Power Act.

James Goller (Idaho, appointed 1987)
Goller spent six years as chief of staff for Idaho's Senator James McClure prior to being appointed to the Council. In 1966, he managed McClure's first campaign for U.S. representative for Idaho's 1st Congressional District and was a member of McClure's staff until his appointment to the Council. As chief of staff, Goller managed McClure's Idaho offices and supervised the senator's Washington, D.C. staff, including staff members of the U.S. Senate Committee on Energy and Natural Resources and the U.S. Senate Committee on Appropriations.

Stan Grace (Montana, vice chairman, appointed 1989)
Grace was the logging manager at Stoltze–Conner Lumber Company in Darby, Montana, for 15 years. Prior to 1972, he managed a guest ranch in southwestern Montana for four years, and worked in the construction and logging industries as a heavy equipment operator at various times. Grace was a trustee of the Ravalli County Electric Cooperative, Inc., from 1983–1988, and has served as an officer with various hunting and fishing groups.

Ted Hallock (Oregon, chairman, appointed 1988)
Hallock was an Oregon state senator from 1963 to 1983. During this period, he served as senate majority leader and as chairman of the senate committees on energy and the environment, land–use, human resources and housing. Hallock's legislative activities focused on statewide land–use planning, environmental quality, tax reform and health care. He co–authored Oregon's innovative 1973 land use bill. In addition, Hallock has operated a public relations firm in Portland since 1959.

Robert W. Saxvik (Idaho, appointed 1981)
Saxvik was chief of staff for Idaho Governor John Evans, and vice president and general manager of KBAR in Burley, Idaho. Saxvik served three terms in the Idaho State Senate where he was assistant senate minority leader. He was legislative liaison to the governor from 1977 to 1978 and director of the Office of Aging in 1978.

Tom Trulove (Washington, appointed 1986)
Trulove, who holds a doctorate in economics, has been a professor of economics at Eastern Washington University since 1969. He is currently on leave from that position. He was mayor of the City of Cheney from 1978 to 1985. Active in the Association of Washington Cities, he served as a member of several of its committees and was president of the Association from 1984 to 1985. During the development of the 1983 Power Plan, he was vice chairman of the Northwest Power Planning Council's forecasting subcommittee.

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Okanogan country in north central Washington.

Appendices

To the right is a list of appendices to this annual report. They are bound as one document. To obtain a copy of the appendices, contact the Council's public affairs division, 851 S.W. Sixth Avenue, Suite 1100, Portland, Oregon 97204–1348. Telephone: 503–222–5161 or toll free 1–800–222–3355.

Central Idaho rangeland.

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